

SUPPLEMENTAL MATERIAL

Supplemental Table 1. Prospective association of Sugar-Sweetened Beverage intake and abdominal adipose tissue change in MEN

	Non-Consumers (0 - <1/month)	Occasional Consumers (1/month - <1/week)	Frequent Consumers (1/week - <1/day)	Daily Consumers (≥1/day)	
N=552	111	87	245	109	
Median Intake (servings/week)	0	0.5	3	11	P-trend
Δ Body weight (kg)					
Model 1	3.1 (2.0, 4.3)	2.4 (1.1, 3.7)	2.7 (1.9, 3.4)	2.5 (1.2, 3.8)	0.77
Δ VAT volume (cm ³)					
Model 1	938 (789, 1087)	853 (689, 1017)	984 (889, 1079)	1110 (946, 1273)	0.07
Model 1 + Δ body weight	900 (795, 1005)	883 (768, 999)	985 (918, 1052)	1121 (1006, 1236)	0.004
Δ VAT attenuation (HU)					
Model 1	-0.6 (-1.5, 0.3)	-0.1 (-1.1, 0.9)	-0.5 (-1.1, 0.1)	-1.5 (-2.5, -0.5)	0.08
Model 1+ Δ body weight	-0.4 (-1.2, 0.3)	-0.3 (-1.1, 0.5)	-0.5 (-1.0, -0.0)	-1.5 (-2.3, -0.8)	0.02
Model 1+ Δ body weight + Δ VAT volume	-0.7 (-1.2, -0.2)	-0.7 (-1.2, -0.1)	-0.5 (-0.8, -0.1)	-1.1 (-1.6, -0.5)	0.21
Δ SAT volume (cm ³)					
Model 1	488 (371, 606)	482 (353, 611)	435 (360, 509)	513 (385, 641)	0.61
Model 1 + Δ body weight	465 (379, 551)	522 (427, 616)	434 (379, 488)	508 (414, 602)	0.57
Δ SAT attenuation (HU)					
Model 1	-5.8 (-6.4, -5.2)	-5.3 (-5.9, -4.6)	-5.6 (-5.9, -5.2)	-6.1 (-6.8, -5.5)	0.18
Model 1+ Δ body weight	-5.8 (-6.2, -5.3)	-5.4 (-6.0, -4.9)	-5.6 (-5.9, -5.3)	-6.1 (-6.6, -5.5)	0.16
Model 1+ Δ body weight + Δ SAT volume	-5.8 (-6.2, -5.3)	-5.3 (-5.8, -4.8)	-5.6 (-5.9, -5.4)	-6.0 (-6.5, -5.5)	0.21
Δ VAT(cm ³):SAT(cm ³) ratio					
Model 1	0.16 (0.11, 0.21)	0.13 (0.08, 0.18)	0.20 (0.17, 0.23)	0.23 (0.18, 0.28)	0.04
Model 1 + Δ body weight	0.16 (0.11, 0.20)	0.14 (0.09, 0.19)	0.20 (0.17, 0.22)	0.23 (0.18, 0.27)	0.04

Model 1 adjusted for baseline outcome values, age, smoking status (yes/no), physical activity score, energy intake (kcal/day), alcohol intake (g/d), saturated fat intake (%energy), sugar-sweetened beverage intake (servings/week), multivitamin use (yes/no), and intake of individual foods (g/d) including whole grain, fruit, vegetable, coffee (servings/d), nuts, and fish

Supplemental Table 2. Prospective association of Sugar-Sweetened Beverage intake and abdominal adipose tissue change in WOMEN

	Non-Consumers (0 - <1/month)	Occasional Consumers (1/month - <1/week)	Frequent Consumers (1/week - <1/day)	Daily Consumers (≥1/day)	P-trend
N=451	206	109	111	25	
Median Intake (servings/week)	0	0.5	2	9	
Δ Body weight (kg)					
Model 1	1.8 (0.8, 2.7)	2.5 (1.2, 3.7)	2.1 (0.8, 3.4)	1.2 (-1.6, 4.0)	0.72
Δ VAT volume (cm ³)					
Model 1	325 (259, 390)	373 (284, 462)	363 (273, 454)	541 (342, 739)	0.07
Model 1 + Δ body weight	338 (291, 385)	349 (285, 412)	355 (291, 419)	574 (433, 715)	0.005
Δ VAT attenuation (HU)					
Model 1	1.6 (0.9, 2.2)	1.2 (0.3, 2.1)	0.8 (-0.1, 1.7)	0.3 (-1.7, 2.3)	0.19
Model 1 + Δ body weight	1.5 (0.9, 2.1)	1.4 (0.6, 2.2)	0.9 (0.1, 1.7)	0.1 (-1.7, 1.8)	0.11
Model 1 + Δ body weight + Δ VAT volume	1.3 (0.9, 1.8)	1.2 (0.6, 1.8)	0.9 (0.3, 1.5)	1.7 (0.4, 3.0)	0.79
Δ SAT volume (cm ³)					
Model 1	714 (594, 835)	780 (617, 943)	736 (571, 900)	550 (188, 912)	0.42
Model 1 + Δ body weight	733 (653, 813)	734 (627, 842)	726 (617, 835)	640 (400, 880)	0.50
Δ SAT attenuation (HU)					
Model 1	-5.3 (-5.8, -4.8)	-5.2 (-5.9, -4.6)	-5.3 (-6.0, -4.6)	-4.3 (-5.7, -2.8)	0.27
Model 1 + Δ body weight	-5.4 (-5.8, -5.0)	-5.1 (-5.6, -4.5)	-5.2 (-5.8, -4.7)	-4.4 (-5.6, -3.2)	0.22
Model 1 + Δ body weight + Δ SAT volume	-5.3 (-5.7, -5.0)	-5.1 (-5.6, -4.6)	-5.2 (-5.7, -4.7)	-4.7 (-5.8, -3.6)	0.40
Δ VAT(cm ³):SAT(cm ³) ratio					
Model 1	0.00 (-0.02, 0.02)	-0.00 (-0.02, 0.02)	0.02 (-0.01, 0.04)	0.07 (0.02, 0.12)	0.008
Model 1 + Δ body weight	0.00 (-0.02, 0.02)	-0.00 (-0.02, 0.02)	0.01 (-0.01, 0.04)	0.07 (0.02, 0.12)	0.006

Model 1 adjusted for baseline outcome values, age, smoking status (yes/no), physical activity score, energy intake (kcal/day), alcohol intake (g/d), saturated fat intake (%energy), sugar-sweetened beverage intake (servings/week), multivitamin use (yes/no), and intake of individual foods (g/d) including whole grain, fruit, vegetable, coffee (servings/d), nuts, and fish

Supplemental Table 3. Prospective association of Diet Soda intake and abdominal adipose tissue change in MEN

	Non-Consumers (0 - <1/month)	Occasional Consumers (1/month - <1/week)	Frequent Consumers (1/week - <1/day)	Daily Consumers (≥1/day)	
N=552	298	64	107	83	
Median Intake (servings/week)	0	0.5	3	13	P-trend
Δ Body weight (kg)					
Model 1	2.5 (1.8, 3.2)	2.0 (0.5, 3.5)	2.8 (1.7, 4.0)	3.7 (2.3, 5.0)	0.10
Δ VAT volume (cm ³)					
Model 1	950 (863, 1037)	884 (699, 1069)	1011 (867, 1156)	1113 (946, 1281)	0.07
Model 1 + Δ body weight	967 (906, 1029)	942 (812, 1072)	997 (895, 1098)	1025 (907, 1142)	0.35
Δ VAT attenuation (HU)					
Model 1	-0.5 (-1.0, 0.1)	-0.6 (-1.7, 0.5)	-1.1 (-2.0, -0.3)	-0.7 (-1.7, 0.3)	0.68
Model 1 + Δ body weight	-0.6 (-1.0, -0.2)	-0.9 (-1.8, -0.0)	-1.0 (-1.7, -0.4)	-0.2 (-1.0, 0.6)	0.37
Model 1 + Δ body weight + Δ VAT volume	-0.7 (-1.0, -0.4)	-1.0 (-1.6, -0.4)	-1.0 (-1.4, -0.5)	0.1 (-0.5, 0.6)	0.02
Δ SAT volume (cm ³)					
Model 1	426 (359, 494)	489 (346, 633)	587 (475, 699)	449 (317, 580)	0.81
Model 1 + Δ body weight	438 (389, 488)	528 (423, 634)	569 (487, 651)	398 (302, 495)	0.37
Δ SAT attenuation (HU)					
Model 1	-5.5 (-5.9, -5.2)	-5.9 (-6.6, -5.2)	-6.0 (-6.5, -5.4)	-5.7 (-6.4, -5.1)	0.66
Model 1 + Δ body weight	-5.6 (-5.9, -5.3)	-6.0 (-6.6, -5.4)	-5.9 (-6.4, -5.4)	-5.5 (-6.1, -5.0)	0.68
Model 1 + Δ body weight + Δ SAT volume	-5.7 (-5.9, -5.4)	-5.9 (-6.4, -5.3)	-5.7 (-6.1, -5.2)	-5.7 (-6.2, -5.2)	0.94
Δ VAT(cm ³):SAT(cm ³) ratio					
Model 1	0.18 (0.16, 0.21)	0.15 (0.09, 0.21)	0.18 (0.13, 0.22)	0.22 (0.17, 0.28)	0.13
Model 1 + Δ body weight	0.19 (0.16, 0.21)	0.16 (0.10, 0.21)	0.17 (0.13, 0.22)	0.22 (0.17, 0.27)	0.22

Model 1 adjusted for baseline outcome values, age, smoking status (yes/no), physical activity score, energy intake (kcal/day), alcohol intake (g/d), saturated fat intake (%energy), sugar-sweetened beverage intake (servings/week), multivitamin use (yes/no), and intake of individual foods (g/d) including whole grain, fruit, vegetable, coffee (servings/d), nuts, and fish

Supplemental Table 4. Prospective association of Diet Soda intake and abdominal adipose tissue change in WOMEN

	Non-Consumers (0 - <1/month)	Occasional Consumers (1/month - <1/week)	Frequent Consumers (1/week - <1/day)	Daily Consumers (≥1/day)	
N=451	203	64	114	70	
Median Intake (servings/week)	0	0.5	3	12	P-trend
Δ Body weight (kg)					
Model 1	3.3 (2.4, 4.2)	1.1 (-0.6, 2.7)	0.6 (-0.6, 1.8)	1.5 (-0.1, 3.0)	0.11
Δ VAT volume (cm ³)					
Model 1	422 (358, 487)	300 (186, 415)	306 (220, 393)	307 (195, 419)	0.14
Model 1 + Δ body weight	358 (311, 405)	345 (262, 427)	378 (316, 441)	336 (256, 417)	0.71
Δ VAT attenuation (HU)					
Model 1	0.7 (0.1, 1.3)	3.0 (1.8, 4.1)	1.1 (0.3, 2.0)	1.3 (0.2, 2.4)	0.83
Model 1 + Δ body weight	1.1 (0.5, 1.7)	2.8 (1.7, 3.8)	0.7 (-0.1, 1.5)	1.1 (0.1, 2.1)	0.48
Model 1 + Δ body weight + Δ VAT volume	1.1 (0.7, 1.5)	2.2 (1.4, 2.9)	0.9 (0.3, 1.5)	1.3 (0.6, 2.0)	0.87
Δ SAT volume (cm ³)					
Model 1	791 (673, 908)	661 (452, 871)	620 (462, 779)	772 (568, 976)	1.00
Model 1 + Δ body weight	669 (591, 748)	755 (617, 894)	754 (649, 859)	821 (686, 956)	0.08
Δ SAT attenuation (HU)					
Model 1	-5.5 (-6.0, -5.0)	-4.9 (-5.8, -4.1)	-4.8 (-5.4, -4.2)	-5.2 (-6.1, -4.4)	0.69
Model 1 + Δ body weight	-5.1 (-5.5, -4.7)	-5.2 (-5.9, -4.5)	-5.2 (-5.8, -4.7)	-5.5 (-6.2, -4.8)	0.37
Model 1 + Δ body weight + Δ SAT volume	-5.3 (-5.6, -4.9)	-5.2 (-5.8, -4.6)	-5.1 (-5.6, -4.7)	-5.2 (-5.8, -4.6)	0.82
Δ VAT(cm ³):SAT(cm ³) ratio					
Model 1	0.02 (0.00, 0.03)	-0.02 (-0.05, 0.01)	0.01 (-0.01, 0.03)	-0.00 (-0.03, 0.03)	0.62
Model 1 + Δ body weight	0.01 (-0.00, 0.03)	-0.02 (-0.05, 0.01)	0.02 (-0.00, 0.04)	0.00 (-0.03, 0.03)	0.91

Model 1 adjusted for baseline outcome values, age, smoking status (yes/no), physical activity score, energy intake (kcal/day), alcohol intake (g/d), saturated fat intake (%energy), sugar-sweetened beverage intake (servings/week), multivitamin use (yes/no), and intake of individual foods (g/d) including whole grain, fruit, vegetable, coffee (servings/d), nuts, and fish